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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
MARK J. van DOMMELEN, ET.AL.

Atty. Docket
BE000011

Serial No. 09/873,564

Group Art Unit 2841

Filed: June 04, 2001

Examiner: LEVI, Dameon E.

Title: HIGH-PRESSURE DISCHARGE LAMP

Technology Center 2800
Commissioner for Patents
Alexandria, VA 22313-1450

STATUS LETTER

Sir:

The Attorney's information in the above-identified application is that an action by the Patent and Trademark Office docketing Applicants' Appeal Brief mailed April 26, 2005, is due therein. This information is based on a telephone conversation with Examiner Levi on September 8, 2005 during which he indicated that the Appeal Brief had not been docketed as of that date.

Enclosed, from the records of assignee, Koninklijke Philips Electronics, N.V., is a true and correct copy of Applicants' Appeal Brief mailed April 26, 2005, Petition for Extension of Time mailed April 26, 2005 and return receipt postcard received from the Patent and Trademark Office confirming receipt of the Appeal Brief by the Office on April 29, 2005.

If this status is correct, kindly state the approximate date when said action will be given.

If the status is incorrect, please state the date of the last Patent and Trademark Office action with respect to receipt and handling of this Appeal Brief.

Respectfully submitted,

By Frank J. Keegan
Frank J. Keegan, Reg. No.: 50,145
Attorney
(914) 333-9669
September 12, 2005

Enclosures: Appeal Brief mailed April 26, 2005
Petition for Extension of Time mailed April 26, 2005
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DOCKET NO. BE 000011 DIV. KEEG SER. NO. 09/873,564
High-pressure discharge lamp

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Appl. No. 09/873,564
Brief of Appellant
Brief following Appeal of 26 January 2005

Page 1 of 11

**IN THE UNITED STATES PATENT AND TRADEMARK
OFFICE BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Appl. No. : 09/873,564
Appellant(s) : VAN DOMMELEN, Mark J., et al.
Filed : 4 April 2001
Title : HIGH-PRESSURE DISCHARGE LAMP
TC/A.U. : 2841
Examiner : LEVI, Dameon E.
Atty. Docket : BE 000011

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872-9318.

On: April 26, 2005

By: John C Fox

APPELLANT'S APPEAL BRIEF

Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

BRIEF OF APPELLANT

This Brief of Appellant follows a Notice of Appeal, dated 26 January 2005, appealing the decision dated 15 November 2004, of the Examiner finally rejecting claims 1, 3 and 4 of the application. All requisite fees set forth in 37 CFR 1.17(c) for this Brief are hereby authorized to be charged to Deposit Account No. 501,850.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee of all rights in and to the subject application, Koninklijke Philips Electronics, N.V. of The Netherlands.

RELATED APPEALS AND INTERFERENCES

To the best of the knowledge of the undersigned, no other appeals or interferences are known to Appellants, Appellants' legal representatives, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Of the original claims 1-3, claims 1 and 3 were amended, claim 2 was cancelled, and a final rejection of claims 1 and 3 was reversed by the Board of Patent Appeals and Interferences by a decision dated 15 March 2004.

Prosecution was then reopened and claim 4 was added. Claims 1, 3 and 4 now stand finally rejected as set forth in the final Office Action dated 15 November 2004, and are the subject of this appeal.

STATUS OF AMENDMENTS

No amendments were offered subsequent to the final Office action. All amendments have been entered.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention relates to a high-pressure discharge lamp (L) comprising a discharge vessel (3) which is enveloped with clearance (10) by an outer bulb (1) provided with a lamp cap (2), which outer bulb (1) is translucent. Page 1, lines 1-3.

A lamp of this type is commonly known and finds wide application, for example, in public lighting. The outer bulb of the known lamp is shaped, for example, like an ovoid or paraboloid of revolution. The outer bulb may be provided at an end portion with a dimple or a dome to support the discharge vessel. Page 1, lines 6-10.

A drawback of the known lamp is that it is comparatively voluminous, which adversely affects the light-focusing possibilities. Page 1, lines 11-13.

In accordance with the invention, a lamp (L) of the type mentioned is characterized by the outer bulb (1) being substantially tubular in shape and being provided with a light-scattering layer. Page 1, lines 14-19 and 25; claim 1.

It has been found that a substantially tubular outer bulb (1) not only leads to a smaller volume of the lamp (L) but also to a higher light output of the lamp (L) in a luminaire that is suitable for the known lamp, without the beam distribution being adversely affected. As a result, the lamp in accordance with the invention can very suitably replace the known lamp. Page 1, lines 20-24.

The light-scattering layer (30) has the advantage that the strength of the outer bulb (1) is not adversely affected, as is the case when a surface of the outer bulb itself is rendered

diffusely scattering, for example, by means of sandblasting.
Page 1, lines 25-28.

It is particularly suitable if the light-scattering layer (30) is in the form of an electrostatic coating. Such an electrostatic coating is comparatively simple to produce in industrial-scale batch production processes. Page 1, line 28 through page 2, line 2; claim 3.

In an illustrative embodiment, the electrostatic coating is internally provided on the outer bulb. Page 2, lines 31, 32; claim 4.

GROUND(S) OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are:

1. Are claims 1 and 3 unpatentable over Verschueren (U. S. Patent Number 5,612,585) in view of Whitman et al. (U. S. Patent Number 5,723,937) (herein 'Whitman')?

2. Is claim 3 unpatentable over Verschueren in view of Whitman and further in view of Kinczel et al. (U. S. Patent Number 5,004,948) (herein 'Kinczel') and Thornton (U. S. Patent Number 4,315,193)?

3. Is claim 4 unpatentable over Verschueren in view of Whitman and further in view of Carleton (U.S. patent 5,008,583)?

ARGUMENT

1. Are claims 1 and 3 unpatentable over Verschueren in view of Whitman et al.?

Claims 1 and 3 are rejected under 35 USC 103(a) as being

unpatentable over Verschueren in view of Whitman.

Verschueren discloses a high-pressure discharge lamp with a heat shield for influencing the heat balance of the discharge tube. See col. 1, lines 14, 15. The invention lies in the construction of the heat shield, which results in a reduction of the spread of the cold spot temperature. See col. 1, lines 51-59. The outer tube of the lamp shown in Fig. 1 to illustrate the invention happens to have a tubular shape. However, there is no teaching or suggestion that the particular shape of the outer bulb has any particular advantage for the invention or otherwise. Moreover, Verschueren does not teach or suggest the application of any coatings of any type to the surface of the outer bulb.

Whitman discloses incandescent lamps with a light-scattering coating. Fig. 1(a) shows an incandescent lamp 10 having a tubular quartz envelope 12 with a filament 14 sealed therein. The outer surface 22 is coated with a light-scattering coating 26.

Whitman's lamp 10 is incandescent, so it is not surrounded by an outer bulb in the manner of high-pressure discharge lamps such as those of Appellant and Verschueren. Thus, Whitman's light-scattering coating 26 is not located on an outer bulb, but directly on the outer surface of lamp 10.

Other structures shown by Whitman, in Figs. 2(a), 2(b), 2(c) and 3, all show incandescent lamps mounted within parabolic reflectors (48,72). In Figs. 2(a), 2(b) and 2(c), light-scattering layers are provided in combination with light-reflecting interference filters on the walls of the parabolic reflectors. In Fig. 3, the opening of the parabolic reflector is covered with a lens having an exterior light-scattering coating.

There is no teaching or suggestion by Whitman of a high-pressure discharge lamp with an outer envelope, and the skilled artisan would not be led to apply teachings regarding lamps and structures of very different types to a high-pressure discharge lamp.

The Examiner states that it would have been obvious in view of the teachings of Whitman to provide a light-scattering layer on the outer bulb of Verschueren for the purpose of diffusing the light source image, as taught by Whitman (col. 2, lines 5-10).

However, since Whitman's coatings are applied to parabolic reflectors and lenses for incandescent lamps, and since Whitman does not suggest the desirability of applying such coatings to other lamp types or structures, it would not be obvious in view of Whitman to add coatings to the outer bulb of Verschueren's lamp.

Accordingly, it is urged that the rejection is in error and should be reversed.

Argument with respect to claim 3

Neither Verschueren nor Whitman contain any teachings or suggestions regarding electrostatic coatings. Accordingly, it would not be obvious in view of Whitman to add an electrostatic coating to the outer bulb of Verschueren's lamp.

Accordingly, it is urged that the rejection is in error and should be reversed.

2. Is claim 3 unpatentable over Verschueren in view of Whitman and further in view of Kinczel and Thornton?

Claim 3 is rejected under 35 USC 103(a) over Verschueren in view of Whitman and further in view of Kinczel and Thornton.

Both Kinczel (col. 7, line 55 - col. 8, line 16) and Thornton (col. 3, line 67 - col. 4, line 2) are cited to show electrostatic coating processes for light-scattering layers.

Kinczel describes in the referenced passage the structure of the high-pressure mercury vapor gas discharge lamp of Fig. 5, including a luminescent coating 2 consisting of one or two layers, which can be prepared by electrostatic methods. There is no mention of a light-scattering layer, or that the layer or layers of coating 2 have light-scattering properties. Moreover, there is no mention of an electrostatic coating process for a light-scattering layer.

Thornton also describes a high-pressure mercury vapor lamp, with phosphor materials coated as a layer 34, using a liquid coating technique or a dry electrostatic precipitation technique. Thornton also mentions, with reference to Fig. 3, a layer 42 of a light-scattering material to scatter UV radiation which escapes absorption by the phosphor particles, back to the phosphor layer (34) to energize the phosphor particles. See col. 4, lines 18-25. Significantly, however, there is no mention of any coating technique for layer 34 (col. 4, lines 18-25).

Since Thornton's light-scattering layer functions to increase energization of the phosphor layer, and Verschueren's lamp lacks any such phosphor layer, Thornton's teachings would not suggest the addition of a light-scattering layer to Verschueren's lamp.

In summary, none of the cited references, whether taken alone or in any combination, contain any teaching or suggestion which would lead the skilled artisan to provide a discharge lamp with an electrostatic light-scattering coating on an outer tubular shaped bulb, as called for by claim 3.

Accordingly, it is urged that the rejection is in error and should be reversed.

3. Is claim 4 unpatentable over Verschueren in view of Whitman and further in view of Carleton?

Claim 4 is rejected under 35 USC 103(a) over Verschueren in view of Whitman and further in view of Carleton.

Carleton (col. 1, lines 24-30) is cited to show that the outer bulb of a high-pressure discharge lamp is internally provided with a light-scattering layer.

However, Carleton teaches that such a light-scattering layer has disadvantages, and provides a lamp with a clear outer envelope to overcome these disadvantages. See, e.g., col. 2, lines 8-10.

Thus, not only does Carleton fail to suggest the use of a light-scattering layer on the outer bulb, Carleton actually leads the skilled artisan away from such a light-scattering layer.

One of the reasons Carleton gives for avoiding such a light-scattering layer is that it necessitates an ovoidal or similar-shaped envelope, in order to maintain an acceptable operating temperature. See col. 1, lines 57-61.

Thus, Carleton teaches that light-scattering layers cannot be employed on outer envelopes having shapes other than ovoidal or similar shapes. Consequently, Carleton at least strongly

suggests that light-scattering layers cannot be used on tubular outer envelopes like those of Verschueren and Appellant.

In contrast, Appellant's claims specifically call for a tubular-shaped outer envelope. As pointed out in Appellant's specification, although this leads to a higher thermal load on the coating, it has been found that this has no adverse effects on the service life of the lamp. See page 2, lines 6-8.

Whitman relates to incandescent lamps and parabolic reflectors for such lamps, and thus is not relevant to the field of high-pressure discharge lamps.

Thus, the combination of Verschueren, Whitman and Carleton under Section 103(a) fails to teach or suggest a lamp with an outer envelope of a tubular shape and an internal light-scattering layer, as called for by claim 4. Accordingly, it is urged that the rejection is in error and should be reversed.

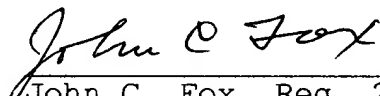
CONCLUSION

In conclusion, the cited references, whether taken alone or in combination, fail to teach or suggest a high-pressure discharge lamp with an outer envelope of a tubular shape and a light-scattering layer. Verschueren teaches a high-pressure discharge lamp with a tubular outer envelope, but without any light-scattering layer. Whitman relates to incandescent lamps in parabolic reflectors. Carleton relates to high-pressure discharge lamps, but teaches that a light-scattering layer can only be used with ovoidal or similar-shaped outer bulbs, in order to maintain acceptable operating temperatures, and that such a layer is disadvantageous for other reasons as well. Carleton specifically rejects the use of a light-scattering layer in favor of a clear outer bulb.'

Appellant's invention is thus not obvious in view of the various combinations of references provided in the rejections. Moreover, Appellant's invention is particularly unexpected and surprising in view of Carleton, since Appellant combines a tubular-shaped outer bulb and a light-scattering layer, without incurring an unacceptable thermal load.

In view of the foregoing, Appellant respectfully requests that the Board reverse the rejections of record.

Respectfully submitted,



John C. Fox, Reg. 24,975
Consulting Patent Attorney
203-329-6584

APPENDIX

CLAIMS ON APPEAL

1. A high-pressure discharge lamp comprising a discharge vessel which is enveloped with clearance by an outer bulb provided with a lamp cap, which outer bulb is translucent, is substantially tubular in shape, and is provided with a light-scattering layer.

3. A lamp as claimed in claim 1, characterized in that the light-scattering layer forms an electrostatic coating.

4. A lamp as claimed in claim 1, characterized in that the outer bulb is internally provided with the light-scattering layer.

Petition

Petition for Extension of Time to file Appellant's Brief

**IN THE UNITED STATES PATENT AND TRADEMARK
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Appl. No. : 09/873,564
Applicant(s) : van DOMMELEN, Mark J., et al.
Filed : 4 June 2001
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TC/A.U. : 2841
Examiner : LEVI, Dameon E.
Atty. Docket : PHBE 000011

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On: April 26, 2005

By: John C Fox

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant hereby petitions for an extension of one month
to file Appellant's Brief following the Notice of Appeal dated
26 January 2005; because of this extension the time period for
response will expire on 26 April 2005. Filed herewith is one
copy of Appellant's Brief.

Please charge the fee for this extension to Deposit
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Respectfully submitted,

John C Fox
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